

SNOWathome.com

Wet-Bulb Temperature Chart

Fahrenheit

Good Snow Quality					Poor Snow Quality							No Snowmaking							
Humidity	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%
Temp (F)																			
20	14	14	14	15	15	15	16	16	16	17	17	18	18	18	19	19	19	20	20
21	14	15	15	16	16	16	17	17	17	18	18	19	19	19	20	20	20	21	21
22	15	16	16	16	17	17	17	18	18	19	19	20	20	20	20	21	21	22	22
23	16	16	17	17	18	18	18	19	19	19	20	20	21	21	21	22	22	22	23
24	17	17	18	18	18	19	19	20	20	20	21	21	22	22	22	23	23	23	24
25	18	18	18	19	19	20	20	20	21	21	22	22	22	23	23	24	24	24	25
26	18	19	19	20	20	20	21	21	22	22	23	23	23	24	24	25	25	25	26
27	19	19	20	20	21	21	22	22	23	23	23	24	24	25	25	26	26	26	27
28	20	20	21	21	22	22	23	23	23	24	24	25	25	26	26	27	27	27	28
29	20	21	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	28	29
30	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	29	29	29	30
31	22	22	23	23	24	25	25	26	26	27	27	28	28	29	29	29	30	30	31
32	23	23	24	24	25	25	26	26	27	27	28	28	29	29	30	30	31	31	32
33	23	24	24	25	26	26	27	27	28	28	29	29	30	30	31	31	32	32	33
34	24	25	25	26	26	27	27	28	29	29	30	30	31	31	32	32	33	33	34
35	25	25	26	27	27	28	28	29	29	30	31	31	32	32	33	33	34	34	35
36	25	26	27	27	28	29	29	30	30	31	31	32	33	33	34	34	35	35	36
37	26	27	27	28	29	29	30	31	31	32	32	33	34	34	35	35	36	37	37
38	27	27	28	29	29	30	31	31	32	33	33	34	35	35	36	36	37	38	38
39	27	28	29	30	30	31	32	32	33	34	34	35	35	36	37	37	38	39	39
40	28	29	30	30	31	32	32	33	34	34	35	36	36	37	38	38	39	40	40

Wet bulb temperature is the lowest temperature that can be obtained by evaporating water into the air at a constant pressure. The term comes from the technique of wrapping a wet cloth around a mercury bulb thermometer and blowing air over the cloth until the water evaporates. The wet bulb temperature is always lower than the dry bulb temperature, but will be identical with 100% relative humidity. This wet bulb temperature is what snowmakers use to know when they can make snow. You can see it is possible to make snow when the temperatures are above freezing but only with very low humidity.

Plot your current temperature (red numbers on the left) to the % of humidity (blue numbers on the top) and where they meet the (black numbers) is your current wet bulb temp.

Any time the wet bulb number is below 20 degrees Fahrenheit (blue shaded area) snowmaking is at its best... nice dry snow. You can make snow from 21 degrees to 27 degrees wet bulb (purple shaded area) but the snow will be wet.